Illinois Department of
Natural Resources

One Natural Resources Way Springfield, Illinois 62702-1271
http://dnr.state.il.us

Pat Quinn, Governor
Marc Miller, Acting Director

April 24, 2009

Mr. David Nelson, Administrator
City of Harvard
201 West Front Street
Harvard, IL 60033

Re: Harvard Community Unit School District 50, Harvard
Project Number: 0904884 / 0907564
County: McHenry

Dear Mr. Nelson:
The Department received this proposed action, located in Township 45 North, Range 5 East, Section 2 from Gewalt Hamilton Associates, Inc., and the City of Harvard, for consultation in accordance with the *Illinois Endangered Species Protection Act* [520 ILCS 10/11], the *Illinois Natural Areas Preservation Act* [525 ILCS 30/17], and Title 17 *Illinois Administrative Code* Part 1075.

The proposed action, construction of a new school building, parking lot, and associated infrastructure, on a 20-acre site, is located off Marengo Road, south of the intersection of Airport Road and Marengo Road. The parcel lies near records for the State-listed threatened **Blanding's Turtle**, *Emydoidea blandingii,* and is in the vicinity of the **Kishwaukee River Illinois Natural Areas Inventory (INAI) Site.** The Kishwaukee River has been identified as an outstanding example of the rivers and creeks of the Mississippi River drainage in northern Illinois and has a diversity of habitats and large populations of many stream fishes, some of which are protected species.

After reviewing additional information received from Gewalt Hamilton Associates, the Department has determined that the action is likely to have adverse impact on Blanding's Turtles and may have an adverse impact on the INAI Site. To minimize potential impacts to the protected resources, the Department recommends that the following measures be implemented by the developers and incorporated in the City's project authorization.

Water Quality Issues
Since the NRI report states that this parcel is located in an area where the potential for contaminating shallow aquifers is high, and since the INAI Site is only 1,500 feet south/southeast of this parcel, the following measures are recommended to alleviate potential issues with water quality on and off site.

1. The Department recommends that native, non-invasive plantings be incorporated in the detention basin and around the school property to aid in directing, filtering, and absorbing stormwater and to increase the site's aesthetic qualities. The Department recommends incorporating non-invasive, native vegetative swales as part of the treatment train of Best Management Practices (BMP) to capture runoff before it is routed to the detention basin. Swales provide ornamental landscaping, lower the level of surface water runoff, increase ground water infiltration, and simultaneously help cleanse the water entering the basin and leaving the site. In addition, these plants require little to no maintenance, once established, preventing the further nutrient load that would occur from traditional turf grass use.

2. A sedimentation basin should be incorporated into the erosion control plans to address exiting concentrated flows during construction. This same basin can then be used as the stormwater detention basin. Due to the proximity of sensitive aquatic communities in the vicinity of this project, strict adherence to erosion and sedimentation control measures around the site should be monitored daily and enforced by the city of Harvard throughout the entire construction process.

3. The creation of rain gardens to capture roof runoff at downspout areas, could also serve as educational tools for teachers and students, and will further assist in stormwater being infiltrated, leading to less water being routed to the detention basin. Landscaping plants to be used should include only native species. For further information on rain gardens, see http://clean-water.uwex.edu/pubs/pdf/home.rgmanual.pdf and http://www.dnr.state.wi.us/runoff/rg/ for how-to manuals and information on incorporating rain gardens at schools.

4. The management of turf grasses frequently entails the use of broad-spectrum broadleaf herbicides, fertilizers, insecticides for grub and mite control, and, in some cases, fungicides. Over-application of these chemicals by management is frequent, since contractors seldom base application rates on adequate soil-testing or a pest census and are not adequately trained or knowledgeable about their uses. All pesticides are toxins, most of them quite deadly to fish and aquatic organisms, while many fertilizers are water-soluble, and any increment which cannot be used by the turf will be leached or washed away in storm water. The result is frequent damage to the vegetation in and around detention basins, higher nutrient loading, and poor water quality (algal blooms) which is then transferred to downstream waters. However, municipalities are pre-empted from exercising any regulatory control over the application of pesticides by the *Illinois Pesticide Act* [415 ILCS 60].

We recommend inclusion of language into contracts to be used by the school which will both educate contractors and allow the school to take action when cumulative applications cause problems since the soccer and baseball fields, as well as other areas having turf grass, may be fertilized and such. The following language is suggested, and may be modified or adapted for your circumstance.

> *Fertilizers and Hazardous Materials. To minimize the costs of maintaining the storm water management system, to avoid pollution, and to protect downstream water quality, the applications of lawn chemicals, including pesticides, shall be held to a minimum. Owners will be held responsible for the application of lawn care chemicals to their lot. Lawn and garden fertilizers should be applied at or below recommended rates. Granulated slow release fertilizers are recommended; the use of liquid fertilizers is discouraged because they are more soluble and more likely to damage the storm water system. Special care must be taken when using pesticides which are toxic to fish and aquatic organisms. In the event a storm water facility is being damaged by nutrient or chemical loading, the Association shall have the right, without notice, to enter upon any lot tributary to that facility to obtain soil samples for testing. When tests demonstrate that lawn chemicals have been applied at excessive rates, the Association may fine the owner of each such lot, which may cover the costs of the soil testing, and the repair, treatment, or revegetation of the storm water management facility. No owner shall maintain or place, nor cause to be maintained or placed, any hazardous substances upon the property as defined by the Section 3.14 of the Environmental Protection Act (415 ILCS 5.3.14).*

5. The Department is concerned that the increase in roads, drives, and parking lots due to this development (and Century Farms Subdivision) will bring about an increase in road salts being present in winter months. From information received, beet juice will be used to reduce the need for road salt on the drives and the school district has been using the minimum amount required for deicing sidewalks, however, it appears that some road salt will still be used. These salts could adversely impact vegetation in the detention basin and downstream aquatic communities (aquifer and river). The Department recommends that a plan be developed for the use of such salts to be used sparingly and that alternatives such as beet juice or Calcium Magnesium Acetate be considered throughout the property.

Blanding's Turtles

1. All crews on site should be educated about Blanding's turtles before work begins. Distribute photos of the turtle (juveniles and adults) and discuss the site management plan for responding to encounters. If a turtle is seen on site inform crews to immediately stop construction in the surrounding area and contact McHenry Country Conservation District, 815/653-2297, and IDNR Region 2 office at 815/273-2733, keeping in mind it is a criminal act to handle one. On-site personnel should watch the turtle until the proper authority arrives to alleviate the situation, keeping at a respectable distance. If the turtle moves, crews should mark the spot they first saw the turtle and the last spot it was seen.

2. The area may contain an unknown nesting site, or more likely, the route to a nesting site. In this instance, transiting turtles are the main concern. Limit construction from October 15 to April 1 if possible, while the turtles are hibernating. Otherwise, construction activities may cause turtles to crushed by equipment or vehicles.

3. If limiting construction from October to April is not possible, to prevent turtles from entering construction areas, exclusionary fencing should be in place from the end of March and maintained through late October. Daily inspections should occur for the first two weeks and then be maintained weekly throughout the construction period to ensure the exclusionary fencing has been properly installed and to check if any turtles are present.

4. Trenches and excavations should be routinely inspected each morning before each work day to ensure no turtles have become trapped, as well as be covered each evening.

5. Informational signs should be placed near the parking lot and detention basin so staff and students realize that Blanding's Turtles are in the vicinity. Information useful on signs could include:

a) These turtles are State-listed
b) A color photo of an adult and juvenile
c) Spanish and English text
d) Wetland vs. upland habitat needs
e) Nesting vs. hibernation needs and time frames
f) What to do if one is seen and who to contact (McHenry Country Conservation District, 815/653-2297), keeping in mind it is a criminal act to handle one.

Consultation on the part of the Department is terminated. In accordance with 17 Ill. Adm. Code 1075.40(h), the city of Harvard must notify the Department of its decision regarding these recommendations, whether they will:

- Allow the action to proceed as originally proposed;
- Require the action to be modified per Department recommendations (please specify measures if not all will be required); or
- Forgo the action.

This consultation is valid for two years unless new information becomes available that was not previously considered, the proposed action is modified, or additional species, essential habitat, or Natural Areas re identified in the vicinity. If the project has not been implemented within two years of the date of this letter, or any of the above listed conditions develop, a new consultation is necessary.

The natural resource review reflects the information existing in the Illinois Natural Heritage Database at the time of the project submittal, and should not be regarded as a final statement on the site being considered, nor should it be a substitute for detailed site surveys or field surveys required for environmental assessments.

If additional protected resources are encountered during the project's implementation, you must comply with the applicable statues and regulations. Also, note that termination does not imply the Department's authorization or endorsement of the proposed action.

Please contact me if you have questions regarding this review.

Cordially,

Kathi Davis
Impact Assessment Section
Division of Ecosystems & Environment
Kathi.davis@illinois.gov
Ph: (217) 785-5500
Fax (217) 524-4177

enclosure

cc: Brad Semel, IDNR/Region II/Restoration Ecology
Ray Eisbrener, IDNR/Region II/Wildlife
Steve Byers, Illinois Nature Preserves Commission
MaryAnne Wanaski, McHenry County Dept of Planning & Development
Elizabeth Kessler, McHenry County Conservation District
Don Dixon, Gewalt Hamilton Associates, Inc.
Cindy Skrukrud, McHenry County Defenders/1075.70
Lisa Haderlein, Land Conservancy of McHenry County/1075.70